

Message Text

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ORIGIN EB-08

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FM SECSTATE WASHDC
TO AMEMBASSY PARIS

C O N F I D E N T I A L STATE 085453

USOECD, EXCON

E.O. 11652: XGDS-1

TAGS: ESTC, COCOM, CH, UK

SUBJECT: UK MSR6 CRYSTAL GROWTH SYSTEM TO THE PRC

REF: COCOM DOC (78) 88

1. OBJECT.
2. PROPOSED EXPORT IS A MALVERN MSR6 MACHINE EMPLOYING THE

CZOCHEWALSKI TECHNIQUE FOR THE GROWTH OF SINGLE
CRYSTAL INGOTS OF A LARGE NUMBER OF MATERIALS, INCLUDING
GALLIUM PHOSPHIDE, INDIUM PHOSPHIDE, GALLIUM ARSENIDE AND
LEAD TELLURIDE. THE MSR6 IS CAPABLE OF BOTH SUBATMOSPHERIC
AND HIGH-PRESSURE ENVIRONMENTS, THE LATTER UP TO 1500 PSI
(100 ATMOSPHERES). THE MALVERN MODULAR SYSTEM, COMPOSED OF
BASIC MECHANICAL UNITS WHICH CAN BE FITTED WITH INTERCHANGE-
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ABLE WORK CHAMBERS AND CONTROL SYSTEMS, ALLOWS EXPANSION OF
THE SYSTEM TO MEET VARIOUS GROWTH REQUIREMENTS. BY THE
ADDITION OF ACCESSORIES SUCH AS CRUCIBLE LIFT AND ROTATION,
THE GROWTH OF LARGE HIGH-QUALITY CRYSTALS CAN BE EASILY
ACCOMPLISHED. CRYSTALS CAPABLE OF BEING PRODUCED IN THE
MSR6 SYSTEM, PARTICULARLY GALLIUM ARSENIDE AND INDIUM
PHOSPHIDE, HAVE IMPORTANT STRATEGIC APPLICATIONS IN MILITARY

MICROWAVE DEVICES.

3. THE PRESENT CASE IS VIRTUALLY IDENTICAL TO AN EARLIER CASE (COCOM DOC (76) 896), TO WHICH THE US OBJECTED. THE MSR6 IN THE PRESENT CASE IS FELT TO BE EVEN MORE USEFUL THAN THE MACHINE OBJECTED TO IN THE PREVIOUS CASE BECAUSE THERE WOULD BE NO NEED TO ALTER THE WORK CHAMBER IN ORDER TO GROW STRATEGIC III-V COMPOUNDS.

4. FYI: WE HAVE RECENTLY REVIEWED, AT THE TECHNICAL LEVEL, THE CAPABILITY OF THE MSR2 SYSTEMS (COCOM DOC (77) 409, (77) 685 AND (77) 619) TO GROW GALLIUM ARSENIDE AND OTHER III-V COMPOUNDS. THE REVIEW REAFFIRMS THE EARLIER TECHNICAL FINDING THAT THE MSR 2 IS CAPABLE OF PRODUCING SUCH CRYSTALS, EVEN WITHOUT MODIFICATIONS (MOST RECENT BROCHURE INDICATES THAT MSR2 IS SUITABLE FOR GROWING GALLIUM ARSENIDE). WE WILL SHORTLY DISCUSS THE RESULTS OF THE MEETING WITH THE BRITISH EMBASSY HERE OFFERING TO DISCUSS TECHNICAL ASPECTS OF THE MATTER FURTHER HERE IN WASHINGTON IF THEY SO DESIRE. WE HAVE NOT FORMALLY REACHED A DECISION ON PENDING UK CASES HOWEVER. WE HAVE NO OBJECTION IF USDEL WISHES TO INFORM UK DEL OF FOREGOING. VANCE

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Message Attributes

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Current Classification: UNCLASSIFIED
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Control Number: n/a
Copy: SINGLE
Draft Date: 03 apr 1978
Decaption Date: 01 jan 1960
Decaption Note:
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Disposition Approved on Date:
Disposition Case Number: n/a
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